VSK-2000

USER'S MANUAL

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VSK-2000 USER'S MANUAL

At Antec, we continually refine and improve our products to ensure the highest quality. It's possible that your new case will differ slightly from the descriptions in this manual. This isn't a problem; it's simply an improvement. As of the date of publication, all features, descriptions, and illustrations in this manual are correct.

Disclaimer
This manual is intended only as a guide for Antec's computer enclosures. For more comprehensive instructions on installing the motherboard and peripherals, please refer to the user's manuals that come with those components.

The VSK-2000 does not come with a power supply unit (PSU). Make sure you choose a power supply that is compatible with your computer components and has a long enough power harness to reach your motherboard and peripheral devices. We recommend our TruePower or Earthwatts power supplies for the latest ATX specification compliance, broad compatibility, and energy-saving capability.

Although care has been taken to prevent sharp edges in your Antec case, we strongly recommend taking the appropriate time and care when working with it. Avoid hurried or careless motions. Please use reasonable precaution.

This manual is not designed to cover CPU, RAM, or expansion card installation. Please consult your motherboard user's manual for specific mounting instructions and troubleshooting. Before proceeding, check the manual for your CPU cooler to find out if there are steps you must take before installing the motherboard. While installing hardware, keep your case on a flat, stable surface.

1.1 CASE SPECIFICATIONS

Case Type	Mid Tower
Color	Black
Dimensions	450mm (H) x 200mm (W) x 470mm (D) 17.7" (H) x 7.9" (W) x x 18.5" (D)
Weight	11.9 lbs / 5.4 kg
Cooling	1 x Rear 120mm TwoCool™ fan 2 x Front 120mm fan mounts (optional) TAC 2.0 compliance
Drive Bays	10 Drive Bays: - 3 x External 5.25" drive bays - 1 x External 3.5" drive bay - 6 x Internal 3.5" drive bays
Expansion Slots	7
Motherboard Size	Mini-ITX, microATX, Standard ATX
Front I/O Panel	2 x USB 2.0 AC'97 / HD Audio In and Out

1.2 DIAGRAM

1. 120mm rear TwoCool™ fan
2. 120mm front fans (optional)
3. Washable air filters
4. Motherboard mount
5. Power supply mount
6. 5.25" external drive bays
7. 3.5" internal drive bays
8. 3.5" external drive bay
9. CPU cutout
10. Front I/O panel
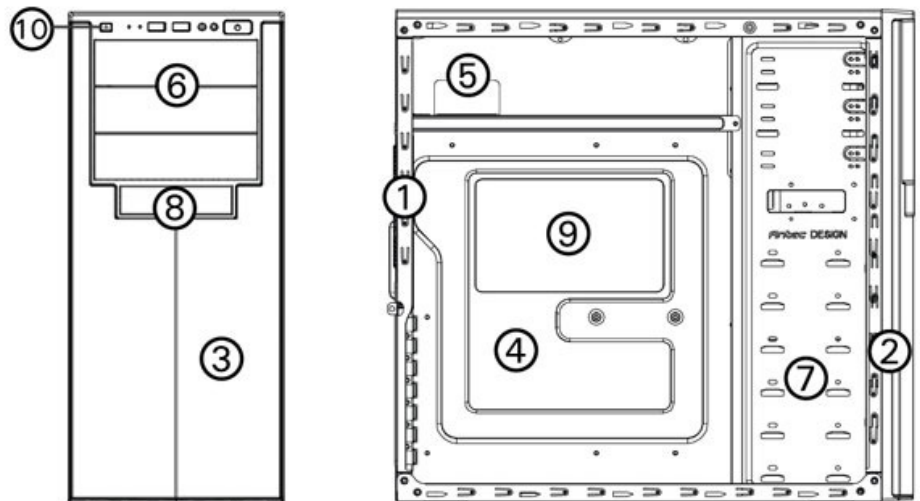
HARDWARE INSTALLATION GUIDE

2.1 SETTING UP

1. Place the case upright on a flat, stable surface with the rear of the case facing you.
2. Remove the side panels by first removing the thumbscrews at the rear of the case. Then, grip each panel at the top and bottom and slide it toward the rear of the case until it detaches from the chassis.
3. To remove the front bezel, locate the three plastic tabs on the left side of the bezel. They fasten the front bezel to the metal chassis. Release the tabs from the top down to release the bezel. Swing the bezel open to about 45° and gently lift the bezel upward, and it will come off easily. Set the bezel in a safe place.

   Note: Do not use your fingernails to pry or lift the panels.

2.2 POWER SUPPLY INSTALLATION

1. With the case on its side, align your power supply with the power supply mounting location near the top panel of the case.

   Note: Power supplies with fans on the bottom of the power supply will need to be mounted so that the fan is facing the bottom of the case.

2. Attach the power supply to the case with the screws provided.

2.3 CABLE MANAGEMENT

There is a cable management compartment behind the 3.5" drive cage. You can tuck or route excess cables in this compartment.

1. Open the right side panel as described in section 2.1.
2. Locate the cable management compartment with cable ties located behind the walls of the 3.5" drive cage.
3. Tuck or route your excess cables to the compartment. This will keep the cables from interfering with airflow in your case and help with cooling.
4. Use the cable ties provided to hold them in place.

2.4 MOTHERBOARD INSTALLATION

1. Lay the case down, with the open side facing up. The drive cages and power supply should be visible.
2. Make sure you have the correct I/O panel for your motherboard. If the panel provided with the case isn't suitable, please contact your motherboard manufacturer for the correct I/O panel.
3. Align your motherboard with the standoff holes and remember which holes are lined up. Not all motherboards will match with all the provided holes; this is normal and won't affect its functionality.
4. Remove your motherboard by lifting it up.
5. Install standoffs as needed and put the motherboard back in.
6. Screw in your motherboard to the standoffs with the provided Phillips-head screws.

> **Note:** The VSK-2000 comes with a CPU cutout on the motherboard tray, which will allow you to change your CPU heatsink without removing the motherboard.

2.5 INTERNAL 3.5" DEVICE INSTALLATION

The VSK-2000 provides space for up to six 3.5" hard drives. Before you begin, remove the side panels and front bezel of the case as described in section 2.1. Behind the front bezel there is a fan cage which provides space for up to two fans at the front of the case.

1. Open the fan cage by pressing both clips to release it, then swing it open and detach it from the chassis.
2. Insert your 3.5" device into the 3.5" drive cage from the front of the case until the mounting holes align with the screw holes in the cage.
3. Fasten the device in place with the provided screws.
4. Mount any other 3.5" HDD devices accordingly.
5. Connect the appropriate power and data cables to the device(s).
6. Replace the fan cage.

2.6 EXTERNAL 3.5" DEVICE INSTALLATION

There is one 3.5" drive bay available just below the 5.25" drive bays at the front of the case. Before you begin, remove the side panels and front bezel of the case as described in section 2.1.

1. Slide your 3.5" device into the drive bay from the front and align the screw holes on the devices with the corresponding holes in the chassis.
2. Fasten the device in place with the provided screws.
3. Connect the appropriate power and data cables.

2.7 EXTERNAL 5.25" DEVICE INSTALLATION

There are three externally accessible 5.25" drive bays. Before you begin, remove both side panels and front bezel as detailed in section 2.1.

1. Remove the drive bay faceplate by applying pressure to the inside of the plate until it pops free of the bezel.
2. Slide your 5.25" device into the bay from the front of the case.
3. Secure the drive into position in the drive cage using the provided screws.
4. Mount any other 5.25" devices accordingly.
5. Connect the appropriate power and data cables to your device(s).

# CONNECTING THE FRONT I/O PORTS

3.1 USB 2.0

Connect the front I/O panel USB cable to the USB header pin on your motherboard. Check your motherboard user's manual to ensure that it matches the table below:
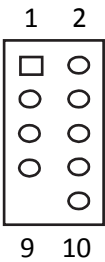
Pin	Signal Names	Pin	Signal Names
1	USB Power 1	2	USB Power 2
3	Negative Signal 1	4	Negative Signal 2
5	Positive Signal 1	6	Positive Signal 2
7	Ground 1	8	Ground 2
9	Key (No Connection)	10	Empty Pin

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3.2 AC'97 / HD AUDIO PORTS

There is an Intel® standard 10-pin AC'97 connector and an Intel® 10-pin HDA (High Definition Audio) connector linked to the front panel of the case.
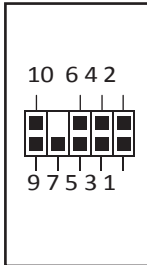
Pin	Signal Names (HDA)	Pin	Signal Names (AC'97)
1	MIC2 L	1	MIC In
2	AGND	2	GND
3	MIC2 R	3	MIC Power
4	AVCC	4	NC
5	FRO-R	5	Line Out (R)
6	MIC2_JD	6	Line Out (R)
7	F_IO_SEN	7	NC
8	Key (no pin)	8	Key (no pin)
9	FRO-L	9	Line Out (L)
10	LINE2_JD	10	Line Out (L)

You can connect either the AC'97 or the HDA connector, depending on your motherboard. Locate the internal audio connectors from your motherboard or sound card and connect the corresponding audio cable. Consult your motherboard or sound card manual for the pin-out positions. Even if your system supports both standards, only use one connector.

3.3 POWER SWITCH / RESET SWITCH / HARD DISK DRIVE LED CONNECTORS

Connected to your front panel are LED and switch leads for power, reset, and HDD LED activity. Attach these to the corresponding connectors on your motherboard. Consult your motherboard manual for specific pin header locations. For LEDs, colored wires are positive (+). White or black wires are negative (−). If the LED does not light up when the system is powered on, try reversing the connection. For more information on connecting LEDs to your motherboard, see your motherboard manual.

Note: Polarity (positive and negative) does not matter for switches.

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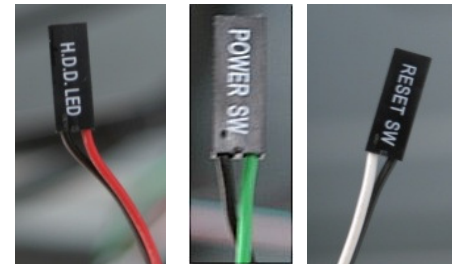
3.4 REWIRING MOTHERBOARD HEADER CONNECTIONS

There may come a time when you need to reconfigure the pin-out of a motherboard header connector. Examples could be for your USB header, audio input header, or some other front panel connector such as the Power Button connector.

Before performing any work, please refer to your motherboard user's manual or your motherboard manufacturer's website to be sure of the pin-out needed for your connector. We strongly recommend making a notated drawing before beginning work so that you can recover if your work gets disturbed.

1. Determine which wires you need to remove in order to rewire your plug to match the USB pin-outs on your motherboard (refer to your motherboard user's manual). Working on one connector at a time, use a very small flathead screwdriver or similar tool to lift up on the black tab located beside the gold posts (squares). This will allow you to easily slide out the pins from the USB plug.
2. Working carefully so as not to damage the wires, connectors, or pins, slowly remove the pin from the connector. Repeat these steps for each wire you need to change.
3. Working carefully so as not to damage the wires, connectors or pins, slowly reinsert the pin into the correct slot of the connector then snap closed the black tab that was lifted in step 1. Repeat these steps for each wire you need to change.
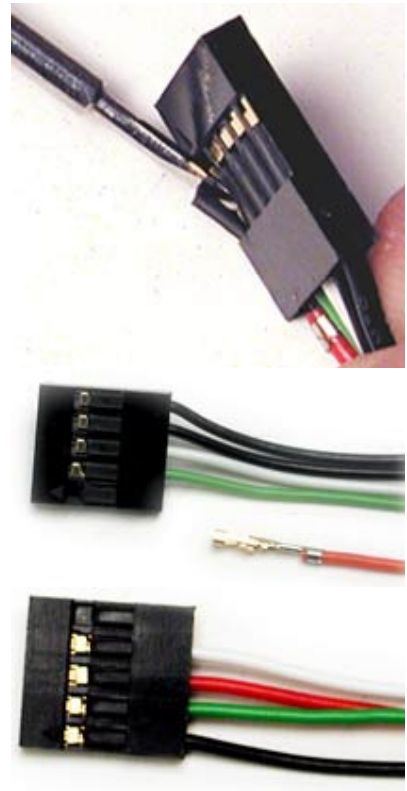
COOLING SYSTEM

4.1 **TWOCOOL™ FANS**

Rear TwoCool™ Fan – There is a 120 x 25mm Two-Cool™ fan preinstalled at the rear of the case. The fan is installed so the air will be blown out of the case. This fan comes with a two-speed switch that let you choose the speed best suited to your need. The default fan speed setting is Low.

120mm TwoCool™ Specifications
Size: 120 x 25mm TwoCool™ fan
Rated Voltage: 12V
Operating Voltage: 10.8V ~ 13.2 V

Speed (RPM)	Input Current	Air Flow	Static Pressure	Acoustic Noise	Input Power
High 1500	0.30A (Max.)	1.434 m³ / min (51.2 CFM)	1.212mm-H_2O (0.047 inch-H_2O)	27.9 dBA	3.6W
Low 900	0.18A	0.0843 m³ / min (30.1 CFM)	0.486mm-H2O (0.02 inch-H2O)	16.9 dBA	2.16W

Note: The minimum voltage to start a typical TwoCool™ fan is 5V. We recommend that you set the fan speed to High if you choose to connect the fan(s) to a fan control device or to the Fan-Only connector found on some Antec power supplies. A fan control device regulates the fan speed by varying the voltage, which may start as low as 4.5V to 5V. Connecting a Two-Cool™ fan set on Medium or Low to a fan-control device may result in the fan not being able to start because the already lowered voltage from the fan control device will be further reduced by the TwoCool™ circuitry below 5V

4.2 **THERMALLY ADVANTAGED CHASSIS DESIGN GUIDE (TAC 2.0)**

This chassis uses a thermal air guide that conforms to the Intel Thermally Advantaged Chassis design guide. This guide is designed to provide ventilation directly to the CPU and graphics card through the integrated air duct located on the side panel.

4.3   OPTIONAL FANS

There are a total of two optional 120mm fan mounts—two
front intake fans (at the front of the HDD cage). We
recommend using Antec 120mm speed control fans and
setting the speed to Low. These fans must be installed so
that the air is blowing into the case.

> **Note:** In order to build a quieter system, we recommend
> NOT installing the optional fans unless it is necessary
> for cooling. If you choose to install them we
> recommend using Antec 120mm speed controlled
> fans and setting the speed to Low.

4.4   WASHABLE AIR FILTERS

Occasionally, it will be necessary to wash the air filters. Not
washing the filters may result in high system temperatures and
possible stability problems. We recommend checking the air
filters at least once a month initially. The frequency will change
depending on environmental conditions and system usage.
Users who run their systems 24/7 will have to check their
filters more often than those who don't run their systems
every day.

Front Air Filter – There is an air filter located behind the front
bezel.

To remove the filters:
1. Remove the front bezel as listed in section 2.1.
2. Remove the screws in the center of the front bezel to release the air filter.
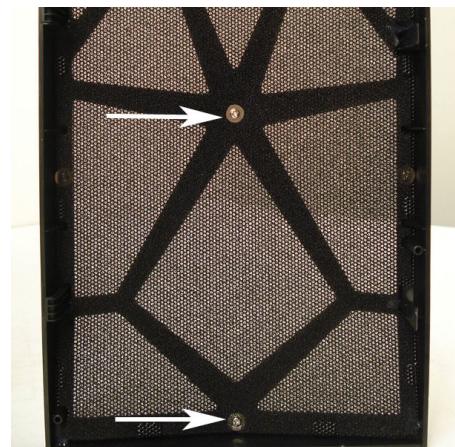
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